

# iCC40GP



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Direct and Protect traffic across multiple WANs including built-in LTE

## Applications

Connect IP, PoE and serial devices at remote sites across multiple WAN options to reduce backhaul costs and increase availability of critical information

- Connect any combination up to 4 WAN links (Wireless, Fiber, ISP, Cellular, DSL, Cable...)
- Automatic Fail-Over Protection across WAN links
- Designate specific traffic over a particular WAN
- Balance traffic across all WANs
- Prioritize traffic by Type or Application
- Secure VPN between sites



## Features

- 24 x 10/100/1000Base-T(X) ports
- 4 x 10/100/1000Base-T(X) PoE up to 30 Watts per port
- 4 x 1000Base-X SFP ports
- 4 x RS232/422/485 Serial Ports (DB9)
- 3 x 10/100Base-T(X) WAN ports or 2 x 10/100Base-T(X) WAN ports plus 1 LTE internal modem
- 1 x USB modem port
- IPsec VPN
- SNMP v1/v2c/v3, RMON and 802.1Q VLAN Network Management
- Multiple notifications for warning of unexpected events Web-based, Telnet, Console (CLI), and Windows utility
- Event notification through Syslog, Email, SNMP trap, and Relay Output

Cellular  
Modem



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## Introduction

The iCC40GP is a managed Ethernet switch designed to collect data from a variety of IP and serial devices and send it out across multiple WANs protecting your mission-critical applications from network interruptions or temporary malfunctions with automatic failover across the WANs. This i55Com switch provides advanced IP-based bandwidth management, which can limit the maximum bandwidth of each IP device. Users can configure an IP camera and NVR with more bandwidth and limit the bandwidth of other devices. The iCC40GP switch supports application-based QoS. Application-based QoS can set highest priority for data stream according to TCP/UDP port number. The special Device Linking function allows only specific IP addresses with a MAC address to access the network. The iCC40GP switch also provides for advanced DOS/DDOS auto prevention. If an IP flow gets too big in a short period of time, the switch locks the source IP address for a certain amount of time to prevent the attack. The switch can be managed centrally as well as with a Web-based interface, Telnet and console (CLI) configuration. Each iCC40GP series switch has the option of 3 x 10/100Base-T(X) WAN interfaces or 2 x 10/100Base-T(X) plus a built-in LTE modem (can be set for either AT&T or Verizon networks).

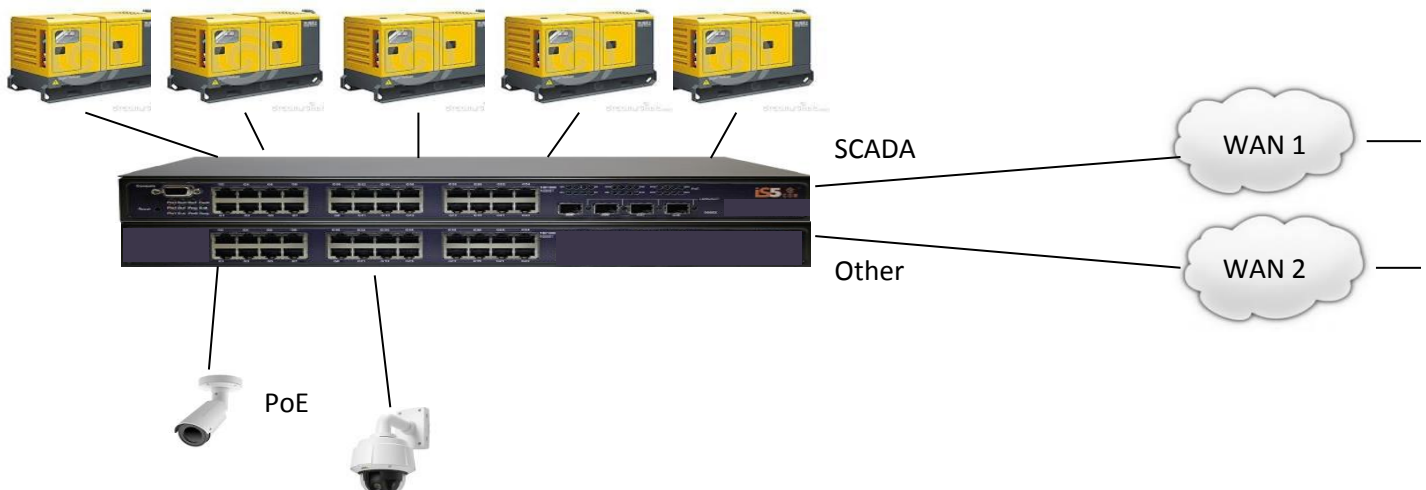
**Count on 100% uptime with automatic failover between WANs.** The iCC40GP continually checks the health of all WAN links and switches traffic away from failed, inactive or intermittent WAN connections.

**Save money by directing only low bandwidth critical traffic, like SCADA, over high-cost WANs (LTE, Satellite....)** while directing non-critical high bandwidth traffic over other WANs. Save even more money with flexible failover schemes tailored to fit your data requirements and minimize backhaul costs.

**This device has been designed for operation in harsh environments.** It is simple to install and configure, is extremely robust and has a wide operating temperature range without cooling fans.

## Applications

The iCC40GP is a versatile product designed to create maximum availability of critical information from remote sites. Extended operating temperature, a broad array of connection options and traffic engineering across multiple WANs provides users a simple and cost effective way to conveniently manage and monitor your network.



## Specifications

| Model Number iCC44GP  |  |
|---|--|
| <b>Physical Ports</b>   |  |
| 10/100/1000 Base-T(X) Ports RJ45                              | 24   |
| 10/100/1000 Base-T(X) Ports RJ45<br>Auto MDI/MDIX with P.S.E. | 4  |
| 1000Base-X SFP Port   | 4  |
| RS232/422/485 Serial Ports (DB9)                              | 4  |
| WAN ports   | 3 x 10/100Base-T(X) RJ45<br>or<br>2 x 10/100Base-T(X) RJ45 plus 1 LTE  |
| USB modem port  | 1  |
| <b>Technology</b>   |  |
| Ethernet Standards  | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX<br>IEEE 802.3ab for 1000Base-T<br>IEEE 802.z for 1000Base-X<br>IEEE 802.3x for Flow control<br>IEEE 802.3ad for LACP (Link Aggregation Control Protocol )<br>IEEE 802.1p for COS (Class of Service)<br>IEEE 802.1Q for VLAN Tagging<br>IEEE 802.1D for STP (Spanning Tree Protocol)<br>IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol)<br>IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol)<br>IEEE 802.1x for Authentication<br>IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)<br>IEEE 802.3at PoE Specification (up to 30 Watts per port for P.S.E.) |
| MAC Table   | 8k   |
| Priority Queues   | 4  |
| Processing  | Store-and-Forward  |
| Switch Properties   | Switching latency: 7 $\mu$ s<br>Switching bandwidth: 56Gbps<br>Max. Number of Available VLANs: 256<br>IGMP multicast groups: 128 for each VLAN<br>Port rate limiting: User Define  |
| Jumbo frame   | Up to 9K Bytes   |



|   |  |   |
|---|--|---|
| Security Features                           | Device Linking security feature<br>Enable/disable ports, MAC based port security<br>Port based network access control (802.1x)<br>VLAN (802.1Q ) to segregate and secure network traffic<br>Radius centralized password management<br>SNMPv3 encrypted authentication and access security<br>Https / SSH enhance network security  |   |
| Software Features                           | STP/RSTP/MSTP (IEEE 802.1D/w/s)<br>Redundant Ring (iRing) with recovery time less than 30ms over 250 units<br>TOS/Diffserv supported<br>Quality of Service (802.1p) for real-time traffic<br>VLAN (802.1Q) with VLAN tagging and GVRP supported<br>IGMP Snooping<br>IP-based bandwidth management<br>Application-based QoS management<br>DOS/DDOS auto prevention<br>Port configuration, status, statistics, monitoring, security<br>DHCP Client/Server<br>SMTP Client |   |
| Network Redundancy                          | iRing<br>Fast Recovery Mode<br>STP<br>RSTP<br>MSTP   |   |
| RS-232 Serial Console Port                  | RS-232 in DB9 connector with console cable. 115200bps, 8, N, 1   |   |
| <b>LED Indicators</b>                       |  |   |
| Power-1 Indicator (PW1)                     | Green : Indicates Power Supply 1 input   |   |
| Power-2 Indicator (PW2)                     | Green : Indicates Power Supply 2 input   |   |
| System Ready Indicator (STA)                | Green : Indicates that the system is ready. Blinking while the system upgrades firmware  |   |
| Ring Master Indicator (R.M.)                | Green : Indicates that the system is operating in iRing Master mode  |   |
| iRing Indicator (Ring)                      | Green : Indicates system is operating in iRing mode Blinking indicates the Ring is broken.   |   |
| Fault Indicator (Fault)                     | Amber:Indicates unexpected event occurred  |   |
| System Running Indicator (RUN)              | Green : System operated continuously   |   |
| Supervisor Login Indicator (RMT)            | Green : System is accessed remotely  |   |
| Reset To Default Running Indicator (DEF)    | Green : System reset to default configuration  |   |
| Ping Command To The Switch Indicator (Ping) | Green : System is processing "PING" request  |   |
| PoE indicator                               | Green for P.S.E. power output indicator  |   |
| 10/100/1000Base-T(X) RJ45 Port Indicator    | Left LED - Green for 1000Mbps, and Amber for 10/100Mbps, Right LED - Amber for full-duplex   |   |
| 1000Base-X SFP Port Indicator               | Green for port Link/Act.   |   |
| <b>Fault Contact</b>                        |  |   |
| Relay                                       | Relay output capacity of 1A at 24VDC   |   |
| <b>Power</b>                                |  |   |
| Input Power Requirements                    | 24 VDC (20-26VDC)  | Internal Power Supplies, dual redundant |
| Power Consumption                           | 55 Watts (typical with no P.S.E.) plus 30W per P.O.E port connected  |   |
| Overload Current Protection                 | Present  |   |



| <b>Physical Characteristic</b> |  |
|--------------------------------|--|
| Enclosure                      | IP40 Galvanized Steel Housing  |
| Dimension (W x D x H)          | 443 (W) x 342 (D) x 88 (H) mm (17.46 x 13.46 x 3.46 inch)  |
| Weight (g)                     | 5250g  |
| <b>Environmental</b>           |  |
| Storage Temperature            | -40°C to 85°C (-40°F to 185°F)   |
| Operating Temperature          | -30°C to 65°C (-30°F to 165°F)   |
| Operating Humidity             | 5% to 95% Non-condensing   |
| <b>Regulatory Approvals</b>    |  |
| EMI                            | FCC Part 15, CISPR (EN55022) class A   |
| EMS                            | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11 |
| Shock                          | IEC60068-2-27  |
| Free Fall                      | IEC60068-2-32  |
| Vibration                      | IEC60068-2-6   |
| <b>Warranty</b>                |  |
| Warranty                       | 5 Years  |



\*\*SFP's to be ordered separately.

| SFP Module #       | Description   |
|--------------------|---|
| SFP100-MM-2        | SFP 100Mbps Multimode LC Transceiver 2km, 1310nm, -40C - +85C                               |
| SFP100-SM-30       | SFP 100Mbps Singlemode LC Transceiver 30km, 1310nm, -40C - +85C                             |
| SFP100-SM-60       | SFP 100Mbps Singlemode LC Transceiver 60km, 1310nm, -40C - +85C                             |
| SFP100-SM-100      | SFP 100Mbps Singlemode LC Transceiver 100km, 1550nm, -40C - +85C                            |
| SFP100-SM-120      | SFP 100Mbps Singlemode LC Transceiver 120km, 1550nm, -40C - +85C                            |
| SFP100BIDI1-SM-20  | SFP 100Mbps Bi-Directional Singlemode LC Transceiver 20km, TX1310 nm, RX1550nm, -40C - +85C |
| SFP100BIDI2-SM-20  | SFP 100Mbps Bi-Directional Singlemode LC Transceiver 20km, TX1550 nm, RX1310nm, -40C - +85C |
| SFP100BIDI1-SM-40  | SFP 100Mbps Bi-Directional Singlemode LC Transceiver 40km, TX1310 nm, RX1550nm, -40C - +85C |
| SFP100BIDI2-SM-40  | SFP 100Mbps Bi-Directional Singlemode LC Transceiver 40km, TX1550 nm, RX1310nm, -40C - +85C |
| SFP100BIDI1-SM-60  | SFP 100Mbps Bi-Directional Singlemode LC Transceiver 60km, TX1310 nm, RX1550nm, -40C - +85C |
| SFP100BIDI2-SM-60  | SFP 100Mbps Bi-Directional Singlemode LC Transceiver 60km, TX1550 nm, RX1310nm, -40C - +85C |
| SFP1000-MM-550     | SFP 1Gbps Multimode LC Transceiver 500m, 850nm, -20C - +85C                                 |
| SFP1000-MM-2       | SFP 1Gbps Multimode LC Transceiver 2km, 1310nm, -40C - +85C                                 |
| SFP1000-SM-10      | SFP 1Gbps Singlemode LC Transceiver 10km, 1310nm, -40C - +85C                               |
| SFP1000-SM-20      | SFP 1Gbps Singlemode LC Transceiver 20km, 1310nm, -40C - +85C                               |
| SFP1000-SM-30      | SFP 1Gbps Singlemode LC Transceiver 30km, 1310nm, -40C - +85C                               |
| SFP1000-SM-40      | SFP 1Gbps Singlemode LC Transceiver 40km, 1310nm, -40C - +85C                               |
| SFP1000-SM-50      | SFP 1Gbps Singlemode LC Transceiver 50km, 1550nm, -40C - +85C                               |
| SFP1000-SM-70      | SFP 1Gbps Singlemode LC Transceiver 70km, 1550nm, -40C - +85C                               |
| SFP1000-SM-8-      | SFP 1Gbps Singlemode LC Transceiver 80km, 1550nm, -40C - +85C                               |
| SFP1000BIDI1-SM-10 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 10km, TX1310 nm, RX1550nm, -40C - +85C   |
| SFP1000BIDI2-SM-10 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 10km, TX1550 nm, RX1310nm, -40C - +85C   |
| SFP1000BIDI1-SM-20 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 20km, TX1310 nm, RX1550nm, -40C - +85C   |
| SFP1000BIDI2-SM-20 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 20km, TX1550 nm, RX1310nm, -40C - +85C   |
| SFP1000BIDI1-SM-40 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 40km, TX1310 nm, RX1550nm, -40C - +85C   |
| SFP1000BIDI2-SM-40 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 40km, TX1550 nm, RX1310nm, -40C - +85C   |
| SFP1000BIDI1-SM-60 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 60km, TX1310 nm, RX1550nm, -40C - +85C   |
| SFP1000BIDI2-SM-60 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 60km, TX1550 nm, RX1310nm, -40C - +85C   |
| SFP1000BIDI1-SM-80 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 80km, TX1310 nm, RX1550nm, -40C - +85C   |
| SFP1000BIDI2-SM-80 | SFP 1Gbps Bi-Directional Singlemode LC Transceiver 80km, TX1550 nm, RX1310nm, -40C - +85C   |